

(c) *Improvement of Forest growth.*(1) *Natural Reproduction.*

68. The year under report was favourable to natural reproduction as a whole, whether from seed or stool, owing to a high flood and a fair seed year. In some forests, however, the lateral overflow stood at such a great depth against the embankments, leaving behind it a layer varying from 6 to 24 inches of fresh deposit, that all vegetation was entirely buried under it. If, year after year, the present embankment policy of the Public Works Department brings about a higher and higher flood, the character of the riverain forests will materially change and the babul bearing area may considerably diminish.

69. In the Sukkur Division, owing to an extensive breach in the Sukkur-Begari Bund, the Abad and Bagargi forests were well inundated after a lapse of some years. In the riverain forests, the high floods were by no means destructive as they did not only give an impetus to the existing growth but covered the blanks with self-sown seedlings, and the forest on the new formations which have been added of recent years is speedily getting ready for the axe also.

70. In the areas protected from grazing in the riverain forests of the Naushahro Division, babul seedlings are forcing their way through the dense growth of tamarisk and reeds. In the forests which are not flooded, the reproduction from seed is absolutely *nil*, but from coppice shoots is fairly vigorous. The life of a Kundee forest can be prolonged so long as it is rigidly kept closed against browsers; surface irrigation is not necessary, and the forests both in this as well as in the Sukkur Division, which were reported in previous years to have shown signs of decay or to have actually died out, succumbed to the ravages committed by goats, sheep and camels.

71. Natural reproduction almost everywhere is excellent in the Hyderabad Division. Forests which were beyond the reach of the inundation were flooded for the first time, and bare places which were an eye-sore are now filled with healthy babul seedlings. In Unurpur range, however, the silt deposit has retarded natural reproduction.

72. Where soil and situation are favourable, natural reproduction in the Jerruck Division is quite as good as in the Hyderabad Division, but Mr. Ryan, the Divisional Forest Officer, does not consider that the high floods of the last few years are such a great boon. I quote his own words, "the absence of all surface growth in the riverain babul forests owing to the repeated heavy overflows, is becoming a marked feature in them. All that can be seen in these areas are the old mature trees which were naturally established before the bund system was introduced, and these when cut down leave large blanks, for no young growth springs up to take their place." I take, however, a more hopeful view of the situation, as I think a low inundation may intervene, and if it does not, to reproduce such areas by systematic planting with the aid of the forest cultivator would present no difficulties whatever.

(2) *Artificial Reproduction.*

73. Cultural operations in this Circle are as a rule confined to scattering seed in felled compartments and other closures in order to assist natural reproduction. Regular plantations, properly so called, have not been undertaken. The Kot Sultan project, to create a Tali-forest on the lines of the Changa Manga plantation in the Punjab referred to in paragraph 57 of the last year's administration report, has been shelved pending the construction of the new Shikarpur Canal.

74. In the Sukkur Division, directly after the river fell, 600 maunds of babul seed were broadcasted. The results have been on the whole successful. Innumerable seedlings are reported to have survived the frost, and there is every reason to believe they have established themselves.